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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/077,613

02/15/2002

Arnab Das

16-20

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12/15/2005

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EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2687

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,613

Applicant(s)

DAS ET AL.

Examiner

PHUOC H. DOAN

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/23/2005 have been fully considered but they are not persuasive.

Applicant' remarks: the Examiner has not addressed Applicant's April 13th, 2005 Amendment.

Examiner response: the Advisory Action has been filed following the Applicant's amendment filed on 04/13/2005 with new issues in claims 1, and 20, which amended claim "by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier".

The RCE has been filed 06/13/2005. The Non-Final Office Action has response on 08/11/05 with new issues in claims 1, and 20, which amended claim "**by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station identifier**".

Applicant's remarks: Bolourchi does not disclose or suggest performing a (CRC) cyclic redundancy check calculation over both the contents of the control field and a mobile station identifier.

Examiner response: it is clearly, those Fig. 1A-C indicated the control channels which transmitted the signal between base station and mobile station by performing a cyclic redundancy check (CRC), such process for assigning a high speed shared data channel when a base station has data waiting for transmission to a particular mobile station. The mobile station associated downlink DPCH as well as the shared control channel. If data at the base station is ready for transmission to the mobile station, a High Speed Downlink Shared Channel (HS-DSCH) indicator (HI) is transmitted in the associated DPCH. The HI has n-bit length. The process as described above Fig. 1A-C provides an efficient for assigning common data channels for transmission of data which specific mobile station, the mobile station (ID) is a critical parameter for signaling from the base station to mobile station. Then Bolourchi modified that mobile station ID and the CRC between the base station and the mobile station used the **control channels** to increase for group mobiles need to be identified.

It is understanding that applicant's implemented the High Speed Shared Control Channel (HS-SCCH) in the HSDPA for SCCH control fields and used CRC calculate the number of Y and X bits. Bolourchi discloses the same implement with invention. However, the difference that Bolurchi have

increased the group mobile stations need to be identified for transmission between the base station and group of mobile stations (See page 1, par. [0007-0012]).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10,12-14, and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bolourchi et al (US Pub No: 2002/010013)**.

As to claim 1, Bolourchi et al teach a method for transmitting a plurality of control information between a base station (Node) and one or more mobile stations (UE) in a wireless communication network, the method comprising: modifying one or more prescribed fields (**CRC, UE ID**) in an existing control channel (**SCCH-HS**) to carry a plurality of control and signaling information directly between the base station and at least one mobile station “Fig. 9, page 4, par. [0052-0060]” by performing a cyclic redundancy check

(CRC) calculation over the contents of a control field and mobile station identifier (page 1, par. [0007-0012], page 4, par. [0054-0060], **CRC calculation over the contents** of a control field discloses in par. [0054-0057]).

As to claim 2, Bolourchi et al teach the method according to claim 1, wherein the control and signaling information includes one or more identifiers (UE IDs), and wherein the one or more identifiers include information selected from the group consisting of routing information and message type, (page 4, paragraph [0059]).

As to claim 3, Bolourchi et al teach the method according to claim 2, wherein the routing information indicates the one or more mobile stations for which a transmission is intended, (page 4, paragraph [0052]).

As to claim 4, Bolourchi et al teach the method according to claim 3, wherein the plurality of control and signaling information comprises data 102 (Fig. 4B) and a signaling information (page 2, paragraph [0034]).

As to claim 5, Bolourchi et al teach the method according to claim 3, wherein the transmission is simultaneously transmitted (Fig. 8), (page 4, paragraph [0052]) and intended for a plurality of mobile stations (page 2, paragraph [0037]).

As to claim 6, Bolourchi et al teach the method according to claim 2, wherein the message type indicates a type of action to be carried out by a recipient mobile station (page 4, paragraph [0052]).

As to claim 7, Bolourchi et al teach the method according to claim 1, wherein the control and signaling information includes message address information Fig. 9, (page 4, paragraph [0058]) for a single mobile station.

As to claim 8, Bolourchi et al teach the method according to claim 1, wherein the control and signaling information includes common message address information Fig. 8, (page 4, paragraphs [0058-0059]) for a plurality of mobile stations.

As to claim 9, Bolourchi et al teach the method according to claim 8, wherein the control and signaling information includes an identifier indicating a broadcast transmission (page 4, paragraph [0052]) to the plurality of mobile stations.

As to claim 10, Bolourchi et al teach the method according to claim 8, wherein the control and signaling information includes an identifier indicating a multicast transmission (page 4, paragraph [0052]) for a prescribed number of the plurality of mobile stations.

As to claim 12, Bolourchi et al teach the method according to claim 2, wherein a routing information identifier comprises an explicit set of bits transmitted in a frame (FIG. 4A-B, page 4, paragraphs [0052-0059]) of the existing control channel.

As to claim 13, Bolourchi et al teach the method according to claim 1, wherein the existing control channel includes a message identification field 404, 412, (Fig. 7A) and the control field (page 4, par. [0053]).

As to claim 14, Bolourchi et al teach the method according to claim 13, wherein the control field includes the control and signaling information (page 4, paragraphs [0053-0060]).

As to claim 16, Bolourchi et al teach the method according to claim 15, wherein the transmission includes the mobile station identifier, the CRC calculation, and the control field (See page 3, paragraphs [0048-0049]).

As to claim 17, Bolourchi et al teach the method according to claim 15, wherein the transmission includes the CRC calculation and the control field, and wherein routing information is derived at a receiving mobile station by performing a CRC calculation on the received transmission together (Fig. 7A, 7B) with the receiving mobile station's mobile station identifier (See page 4, paragraphs [0050-0053]).

As to claim 18, Bolourchi et al teach the method according to claim 12, wherein routing information for a transmission is derived via an logical exclusive OR operation performed on a mobile station identifier and a cyclic redundancy check (CRC) calculated on the contents of a control frame (page 4, paragraphs [0050-0053]) in the existing control channel (See page 3, par. [0043-0045]).

As to claim 19, Bolourchi et al teach the method according to claim 13, wherein the message identification field comprises at least two parts, wherein a first part identifies a recipient mobile station for the transmission and wherein a second part indicates a message type (See page 4, paragraphs [0058-0060]).

As to claim 20, Bolourchi et al teach a method for transmitting a plurality control and signaling information between a base station and one or more mobile stations in a wireless communication network, the method comprising: modifying one or more prescribed fields in an existing control channel “**Fig. 1A-C**” to carry one or more prescribed message identifiers Fig. 4A, 4B, (pages 2-3, paragraphs 33-41) between the base station and the one or more mobile stations by performing a cyclic redundancy check (CRC) calculation over the contents of a control field and mobile station

identifier (page 1, par. [0007-0012], page 4, par. [0054-0060], **CRC calculation over the contents** of a control field discloses in par. [0054-0057]), wherein the one or more prescribed message identifiers comprise control and signaling information selected from the group consisting of routing information, message type (page 4, paragraphs [0052-0059]), control information, and a signaling message Fig. 9, (page 4, paragraphs [0058-0060]), whereby express signaling occurs directly between the base station and at least one mobile station Fig. 8, (page 4, paragraphs [0052-0054]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolourchi et al in view of **Willenegger (Pub. No. US 2002/0110181)**.

As to claim 11, Bolourchi et al fail to teach the express signaling information includes an identifier indicating available Walsh space for transmission of data between the base station and the one or more mobile

stations. Willenegger teaches the express signaling information includes an identifier indicating available Walsh space (Walsh code sequences) for transmission 302, (Fig.3), (page 3, paragraph 28) of data between the base station and the one or more mobile stations (page1, paragraphs (0004-0008). Communications between a base station and each user are coded by a distinct Walsh code sequence in order to separate each user from the others (page 3, paragraph 28). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the Walsh code sequence of Willenegger to the system of Bolourchi et al in order to separate each user from the orders (See page 3, paragraph 28).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H. DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER G. KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuoc Doan
12/05/2005



SONNY TRINH
PRIMARY EXAMINER